overcome some of these challenges will be presented. Challenges addressed include documentation of education in different settings over time by multiple team members with varying responsibilities and using different modalities. **Implementation:** Components of the overall education system include teaching materials, documentation flowsheets, and standardized teaching protocols. Documentation focuses on patient/family outcome, ie, mastery of content rather than information provided. **Staff Education:** Preparation of staff involved the identification and training of "superusers" who could then mentor other staff, on-site training using the system by an informatics nurse specialist, and supplemental learning packets. **Evaluation:** The implementation of this system in transplant was part of a larger pilot study. Components of the project evaluation included (1) overall system, (2) clarity of goals and standardized documentation terminology, (3) adequacy of teaching protocols and content, (4) availability of necessary teaching materials and content, (5) usefulness of the system to track education over time, and (6) end-user performance. **Discussion:** Although staff regularly provide education to patients and families, the documentation of the teaching had not been consistent. The new system provided an approach for easy tracking over time, but triggered challenges for the staff. The clinical area where care is delivered is a busy setting and staff often found it difficult to document mastery of knowledge and skills as part of a busy encounter that involved caring for multiple patients at one time. In addition, assessment and documentation of patient/family mastery of skills and content challenged the staff who struggled with the implications of stating mastery of competence by individuals who may later fail to comply with expected self care. Transplant staff in other treatment centers can learn from the experience at our facility as together we strive to improve the knowledge, skills, and abilities of transplant patients/families to provide self care.

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EFFECTS OF SUPPORTIVE-EDUCATIVE NURSING SYSTEM ON DEPENDENT CARE BEHAVIORS AND THE OCCURENCE OF COMPLICATIONS AMONG CHILDREN WITH LONG-TERM TUNNELED CATHETER

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The purpose of this quasi-experimental research was to determine a supportive-educative nursing system on dependent care behaviors, and the occurrence of complications among children with long-term tunneled catheter. The conceptual framework of this study is based on Orem's Nursing Theory. Forty caregiver-child dyads were recruited from in-patient and out-patient pediatric units of Ramathibodi Hospital from May 2003 to March 2005. The inclusion criteria for caregivers were primary caregiver, had no prior experience in catheter care, willing to participate in the study, and able to read or write in Thai. The inclusion criteria for children were children of any age with the first catheter insertion, and informed consent provided by guardian or parents. Thirty caregiver-child dyads were placed to either the experimental group (n = 20) or the control (n = 20) group. The experimental group received an intervention program using the supportive-educative nursing system whereas the control group did not. Experimental and control caregivers received the same conventional nursing care. Caregiving behaviors and the occurrence of complications were assessed when the children came for a follow-up at 2 weeks post discharge using the questionnaires developed by the investigator. All data were analyzed by SPSS/FW program. The results revealed that the caregiving behaviors scores at two weeks post discharge in the experimental group was significantly higher than in the control group ($P < .001$). The occurrence of complications at 2 weeks that was an early sign of exit site infection in children whose caregivers were in the control group was significantly higher than did the experimental group ($P < .003$). Our data suggest that the supportive-educative nursing system is a nursing intervention that effectively influences dependent-care behaviors and decreases the occurrence of catheter-related complications.

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CARE OF THE IMMUNODEFICIENT PATIENT DURING HEMATOPOIETIC STEM CELL TRANSPLANT: THE OMENN'S SYNDROME PATIENT

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Omenn's Syndrome is an autosomal recessive form of severe combined immunodeficiency (SCID). This syndrome is characterized by early postnatal onset of life threatening infections, diffuse erythroderma, and protracted diarrhea with failure to thrive. With the profound immunodeficiency characterized by this disease, the patient can experience a potential early death. The only treatment available for children with Omenn's Syndrome with the potential for a cure is Hematopoietic Stem Cell Transplant. At Children's Hospital, Boston, when presented with the challenges of caring for these patients, a process was developed to educate and resource the nursing staff regarding Omenn's Syndrome. The resources developed were applicable to all aspects of patient care and were utilized by all levels of nursing staff.

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TRANSPLANTING THE CHILD WITH SICKLE CELL DISEASE, ARE WE PREPARED?

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In the pediatric transplant setting, children with sickle cell disease (SCD) have a positive response to hematopoietic stem cell transplantation (HSCT) using a HLA matched sibling donor. HSCT from a matched sibling donor has the curative potential with an overall and disease free survival of 94% and 85%, respectively. Since fewer than 15% of patients with severe SCD have a suitable HLA-identical sibling donor, the use of alternate donor grafts warranted interest. The HSCT program at St. Jude Children's Research Hospital expanded its transplant services for the child with SCD by providing haplo (parental graft) transplantation utilizing megadoses of CD34+ cells. As part of the criteria for the protocol, this patient population must have severe SCD and have had at least 2 to 3 sickle cell events prior to transplant. Nursing care during the peri-transplant period can be much different than caring for an oncology patient during transplantation due to these events. Prior cerebral vascular accidents, acute chest syndrome, cardiac or pulmonary problems could possibly negatively impact the patient during and after conditioning and engraftment. With the increased number of SCD patients admitted to the stem cell transplant unit, the need arose to increase the educational level of the nursing staff regarding SCD and transplant. A resource for the nursing staff was developed, which includes a brief explanation of SCD and inheritance of the disease, but primarily focused on the care of the patient with SCD while undergoing stem cell transplantation. An issue of "The Transplant Times", a St. Jude HSCT nursing journal, was dedicated to SCD and the care of the patient undergoing transplantation. This information was well received by the HSCT nursing staff as well as other departments within the institution. **Bibliography:** Hematopoietic stem cell transplantation (HSCT) for patients with sickle cell disease using reduced conditioning and highly-purified CD34+ cells from partially matched family donors (2002). Principal Investigator: Paul Woodard, MD.

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AN EDUCATIONAL STRATEGY TO DEVELOP BASIC BMT KNOWLEDGE FOR RNs

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Adaptation to current trends in the healthcare environment, such as the nursing shortage, scientifice advances, and financial competition, created considerable change in the BMT Unit at Barnes-Jewish Hospital. Expansion of bed capacity, changes in Unit management, and RN staff turnover with subsequent hiring of several inexperienced RNs led to fragmented and inconsistent orientation of newly hired RNs. This uncertainty threatened BMT Unit commitment to excellent nursing care. The purpose of this project was to provide a sound educational base (Benner, 1982) for BMT RN